

臺灣銀行 105 年新進人員甄試試題

甄試類別【代碼】：七職等／風險管理人員【J1008】

科目二：綜合科目(含風險管理理論與實務、財務金融、統計學)

*請填寫入場通知書編號：_____

注意：①作答前先檢查答案卷，測驗入場通知書號碼、座位標籤號碼是否相符，如有不同應立即請監試人員處理。使用非本人答案卷作答者，不予計分。
②本試卷為一張雙面，共有四大題之非選擇題，各題配分均為 25 分，總計 100 分。
③非選擇題限以藍、黑色鋼筆或原子筆於答案卷上採橫式作答，並請依標題指示之題號於各題指定作答區內作答。
④請勿於答案卷書寫應考人姓名、入場通知書號碼或與答案無關之任何文字或符號。
⑤本項測驗僅得使用簡易型電子計算器(不具任何財務函數、工程函數功能、儲存程式功能)，但不得發出聲響；若應考人於測驗時將不符規定之電子計算器放置於桌面或使用，經勸阻無效，仍執意使用者，該科扣 10 分；該電子計算器並由監試人員保管至該節測驗結束後歸還。
⑥答案卷務必繳回，未繳回者該科以零分計算。

第一題【得以英文或中文作答】：

The risk management process involves risk identification, risk assessment, risk control, and risk reporting. A bank needs to establish a sound framework to manage risks. Please answer the following risk management related questions:

1.As for operational risk management, what are the “three lines of defense”?

Please briefly list some of the main responsibilities for each line of defense.【9分】

2.Please list 3 tools most often used to help identify and assess operational risks.

【3分】

3.What are the four major techniques/strategies to manage risks?【4分】

4.As for catastrophe (or natural disaster) risk:

(1)Is its “likelihood/ frequency” (probability of event) high or low?

(2)Is its “loss severity” high or low?

(3)What is the risk mitigation technique often used and formally recognized in the

operational risk advanced measurement approach (AMA) of the New Basel

Accord?【3分】

5.According to Basel Committee’s document released in April 2016, what are the 3

main sub-types of interest rate risk in the banking book (IRRBB)? Please briefly

explain them.【6分】

第二題【得以英文或中文作答】：

Securitization involves financial institutions’ packaging loans or other assets into newly created securities and selling these securities to investors. Please answer the following questions.

1.For originating financial institutions, what are the benefits that securitization may bring about?【6分】

2.The pass-through security (e.g., mortgage-backed security, MBS) and the collateralized mortgage obligation (CMO) are the two major forms of asset securitization. How does a CMO differ from a pass-through security?【10分】

3.Consider a Government National Mortgage Association (GNMA) mortgage pool with principal of \$20 million. The maturity is 30 years with a monthly mortgage payment of 12% per year. Assume no prepayments.【9分】

① What is the monthly mortgage payment (100% amortizing) on the pool of mortgage?

② If the GNMA insurance fee is 6 basis points and the service fee is 44 basis points, what is the yield on this GNMA pass-through?

③ what is the monthly payment on this GNMA pass-through?

PVIFA(0.8333%,360)=113.950820; PVIFA(0.9583%,360)=100.980375;

PVIFA(1%,360)=97.218331; PVIFA(12%,30)=8.055184

第三題：

銀行對於作業風險所需之計提資本計算有三種方法：基本指標法(Basic Indicator Approach, BIA)、標準法(The Standardized Approach, TSA)，以及進階衡量法(Advanced Measurement Approaches, AMA)。

- (一) 標準法係將銀行之營業毛利(gross income, GI)區分為八大業務別(business line)後，依規定之對應風險係數(即 Beta 係數)，計算各業務別之作業風險資本計提額。請寫出八大業務別之其中五種。【15 分】
- (二) Basel Committee on Banking Supervision(BCBS)為改進基本指標法與標準法之作業風險估計精確度，於 2014 年提出一種新的修正方法：Revised Standardized Approach。與前兩種方法不同處在於以 Business indicator(BI)來代替 GI，去除了股利收入，但加進 net banking book income，且對於 trading activities 及 banking activities 的淨損益皆取絕對值。此種對淨損益採取絕對值的計算，會對作業風險所需之計提資本產生什麼影響？【10 分】

第四題：

為了解各分行的放款風險管理情形，總行管理處分別從 A、B 兩家分行抽查放款戶，記錄二分行的放款戶數、呆帳戶數、平均呆帳金額(單位：百萬)及呆帳標準差。調查結果如下：

| 分行別 | 放款戶數 | 呆帳戶數 | 平均呆帳金額 | 呆帳標準差 |
|-----|------|------|--------|-------|
| A | 300 | 45 | 32 | 8.4 |
| B | 500 | 55 | 28 | 7.5 |

- (一) 在 5%的顯著水準下，請問二分行的呆帳率是否有顯著差異？請寫出呆帳率差異的 95%信賴區間。【12 分】
- (二) 在 5%的顯著水準下，假設二分行呆帳變異數相等，請問二分行放款戶的平均呆帳金額是否有顯著差異？請寫出平均呆帳金額差異的 95%信賴區間。【13 分】